

Fig. 5

McDougall, however, lacks the following elements, which are recited in independent claims 35 and 43:

- “a top surface having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond,”
- a top surface having “an overall surface area of from about 170 to 200 mm²,” and
- “a plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface”

The office action, however, argues that it would have been obvious to modify the toothbrush head of McDougall to have each of these elements based on the disclosures of Bigler, Kressner, and Braun. Applicants disagree.

Regarding the claimed shape of the top surface, the Examiner argues that “it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the shape of the support member of McDougall so that it was an elongated shape like an oval, as Bigler et al. teach, so as to provide a shaped support member that corresponds to and is capable of ergonomically cleaning the oral cavity which being rotationally oscillated.” Office Action, page 4, lines 14-18. Bigler, however, does not appear to actually teach the use of a oval shaped top surface. Although Fig. 1 of Bigler, reproduced below, depicts a brush head that is drawn with an oval, Fig. 1 is a perspective view. It is common to draw circular features of a device with an oval when the device is shown in a perspective view. See Fig. 5 of McDougall for instance,

where both element 9 and the top of cylinder 6 are drawn with an oval. The text of Bigler does not otherwise disclose the shape of the brush head. McDougall cannot be said to reasonably suggest to one having ordinary skill in the art of the use of an oval brush head given the informal nature of the drawings of Bigler, the lack of any indication that the drawings are to scale, and the lack of any discussion regarding the shape of the brush head. Furthermore, the lack of any discussion regarding the shape of the brush head indicates that one having ordinary skill in the art would not have any reason based on the disclosure of Bigler to modify the shape of the brush head of McDougall. The office action's alleged reason for making the modification is so that the brush head can "ergonomically clean[] the oral cavity." This alleged reason highlights the lack of any specific support contained in the prior art for making the asserted modification.

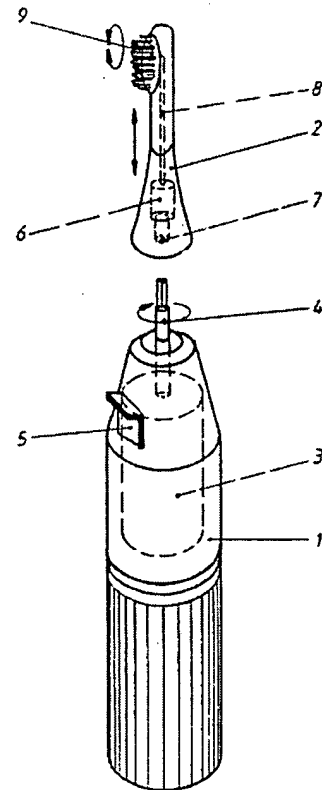
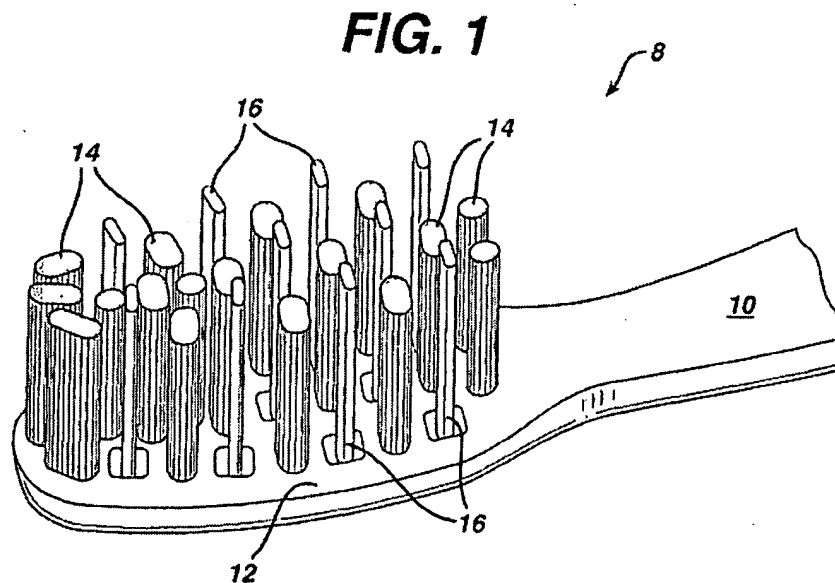


Fig. 1

Regarding the claimed overall surface area of the top surface, the office action asserts that a person having ordinary skill in the art at the time of the invention would have found the claimed top surface area to have been obvious because Kressner discloses a "bristle carrier 44 . . . configured essentially as a circular plate with a diameter of between 11 mm and 15 mm, approximately, preferably 12 mm, approximately." Kressner, col. 3, lines 47-50. The office action rationalizes that a circle having a diameter of 15 mm has an area of about 176.625 mm². While applicants do not argue with the Examiner's math, applicants submit that a person having ordinary skill in the art would not have found Kressner's disclosure regarding circular bristle carriers relevant to a toothbrush head having "a top surface having an elongated shape selected from the group consisting of oval, elliptical and rounded diamond," as presently claimed. The

office action has not given any reason why one having ordinary skill in the art would have selected the claimed dimensions based on the disclosure of Kressner. Accordingly, the rejection cannot be maintained.

Regarding the claimed "plurality of elastomeric fins pivotably mounted in and extending from the support member, each elastomeric fin having a textured surface," the office action has interpreted membranes 23 of McDougall as being the claimed "plurality of elastomeric fins." The office action then goes on to assert that a person having ordinary skill in the art would have modified McDougall to make the membranes 23 "pivotally mounted, as Braun et al. teach, so that pivoted fins are able to fit between teeth and effectively clear interdental spaces." Braun, however, teaches substantially different "elastomeric fins" than the membranes 23 disclosed by McDougall. The Braun fins are shown as reference numeral 16 in Fig. 1, reproduced below.



Unlike the membranes 23 of McDougall, the fins 16 of Braun are not disclosed as being "generally semi-circular in cross-section" and as partially surrounding a "bristle mounted adjacent the periphery of the brush holder." McDougall, page 5, lines 24-27. Because of the "semi-circular" shape and the arrangement of the membranes 23 of McDougall to partially

surround a respective bristle, a person having ordinary skill in the art at the time of invention would have had no expectation of success in attempting to make the membrane pivot.

Furthermore, a person having ordinary skill in the art would not have expected to achieve the advantages of a pivoting fin disclosed by Braun by making the membrane 23 of McDougall pivot due to the differences in shape and size. In fact, given their semi-circular profile, the McDougall membranes would be difficult to make pivot. Furthermore, the membranes 23 of McDougall were designed to clean and polish tooth surfaces, not to reach into and clear interdental spaces between teeth. Modifying the membranes 23 of McDougall to make them pivot would defeat their intended purpose of polishing tooth surface. Accordingly, the combination of McDougall and Braun cannot be maintained.

Claims 37, 44, and 50-53 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over McDougall in view of Braun, Bigler, Kressner, and Nishioka, US Patent 4,373,541 ("Nishioka"). This rejection is also improper for the reasons given above with respect to the McDougall, Braun, Bigler, and Kressner. Furthermore, the rejection is also improper, because one having ordinary skill in the art would not have modified the membranes 23 of McDougall based on the disclosure of Nishioka. Nishioka discloses only bristles having textured surfaces, not membranes, such as those disclosed by McDougall, having textured surfaces. Furthermore, McDougall is concerned with having the membranes 23 "polish surface of the teeth and remove stains during use" and having an arrangement where the membranes do not "become clogged up with toothpaste or debris removed from the teeth." McDougall, page 6, lines 1-3 & 15-17. A person having ordinary skill in the art would not have modified the membrane 23 of McDougall to have a textured surface because a textured surface would undermine this polishing function and result in additional adherence of toothpaste and debris to the membranes. Accordingly, a person having ordinary skill in the art at the time of invention would not have made the asserted combination of McDougall, Bigler, Kressner, Braun, and Nishioka as alleged by the office action. Accordingly, the rejection is in error and should be withdrawn.

Because, each of the pending claims 35, 37-39, 41-46, and 48-53 defines patentable subject matter over the cited prior art, applicants request the allowance of the pending claims. It

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is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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